

CITY OF MIAMI BEACH
Office of the City Manager
Letter to Commission No. 188-2004



To: Mayor David Dermer and
Members of the City Commission

Date: July 19, 2004

From: Jorge M. Gonzalez
City Manager

A handwritten signature in black ink, appearing to read "Jorge".

Subject: 20-INCH WATER MAIN DISTRIBUTION LINE BREAK

This LTC is to provide you information about a major water line break and our response to this emergency this past weekend.

On Saturday, July 17, 2004, at approximately 8:15 p.m., the Public Works Control Room received a phone call from a resident saying that a large amount of water was present at the intersection of Royal Palm Avenue and 30th Street. An employee from the Control Room Service Desk was dispatched to the site for an inspection and found that a 20-inch diameter water main running north and south had burst west of the intersection causing major flooding to a three-block area. This 20-inch water main distribution line provides domestic water to the Middle Beach neighborhood residents. (It is the same size pipe that was installed three years ago on Collins Avenue.) The front end of emergency truck driven by the Control Room employee dropped into the sinkhole but the employee was able to leave the vehicle safely.

Emergency stand-by crews were called immediately and reported to the site within one hour. Due to the severe water break, it was necessary to close eight water valves in a five-block area. This was intensive work, locating water valves during night hours in flooded streets. Crews had to use metal detectors to locate valve covers, with two valve covers buried in landscape areas. The flow of water was controlled at approximately 2:00 a.m. Sunday, July 18.

An advisory notice was delivered to 40 homeowners in the area directing them to boil water as a precautionary measure once the water service was restored. In addition, we used the reverse 911 system to update residents about the water line break. This system was used for the first time to alert and update residents of a major utility disruption.

Preparation began to de-water the sink hole at 2:30 a.m. Sunday morning. This was time consuming as crews had to wait for the initial flooding to cease from the surrounding areas of the intersection. Multiple crews reported to the site at approximately 8:00 a.m. At this time it was found that the 20-inch water line had a severe eight-foot crack at the bottom of the pipe (see pictures attached). Additionally, staff found two other City-owned utility lines were damaged in the same exact location caused by the force of the water main break. An eight-inch diameter sanitary sewer line running east and west underneath the 20-inch water main was ruptured and a 10-inch diameter storm water line 30 feet in length cracked in several places.

Risk Management will be available to residents who may have suffered property damage due to water levels.

Once the damaged section of the water pipe was cut and removed, sewer crews started working on the eight-inch diameter sanitary sewer line three-foot section, seven feet in depth. This was intensive work as crews had to work in controlling the ground water levels due to high tide and rain showers. At approximately 4:00 p.m., the new 20-inch water line section, 13-feet in length, was lowered into place with sleeve connections at each end of the pipe, along with another crew replacing the damaged 10-inch diameter section of storm water pipe.

At 5:00 p.m., crews started opening water valves to start pressurizing the 20-inch water main to check for leaks at the pipe end connections, and none were found. Per Heath Department requirements, the new section of water pipe was chlorinated and flushed for a period of two hours. Water test samples were taken early Sunday evening and water was back in service at 7:00 p.m.

Water testing continues for two consecutive days and a precautionary boil water advisory remains in effect until bacteriological test results show that the water is safe to drink. Final test results are due this coming Wednesday, July 21, 2004, at 1:00 p.m., at which time residents will be notified. The Streets Division crew has back-filled the sink hole and will complete full pavement restoration by the end of this week. Staff did a commendable job under very difficult circumstances.

The precautionary measures we have in place to address situations such as these all worked well and we were able to mitigate more significant damage to our infrastructure and minimize inconvenience to our residents.

Should you need additional information, please contact me.


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c: Robert C. Middaugh, Assistant City Manager
Fred H. Beckmann, Public Works Director
Michael Alvarez, Assistant Public Works Director

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